

App's

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:197516 CAPLUS Full-text
 DN 128:270870
 TI Preparation of 3-mercaptoacetyl-amino-1,5-substituted-2-azepinone
 derivatives as matrix metalloproteinase inhibitors
 IN Warshawsky, Alan M.; Flynn, Gary A.; Patel, Meena V.; Beight, Douglas
 W.; Burkhart, Joseph P.; Tsay, Jiu-Tsair; Janusz, Michael J.; Shen,
 Jian; Dharanipragada, Ramalinga M.
 PA Hoechst Marion Roussel, Inc., USA
 SO PCT Int. Appl., 160 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | WO 9812211 | A1 | 19980326 | WO 1997-US13738 | 19970804 |
| | W: | | | | |
| | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, | | | | |
| | DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, | | | | |
| | LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, | | | | |
| | PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, | | | | |
| | VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, | | | | |
| | GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, | | | | |
| | GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9738278 | A1 | 19980414 | AU 1997-38278 | 19970804 |
| | AU 718055 | B2 | 20000406 | | |
| | EP 928291 | A1 | 19990714 | EP 1997-935308 | 19970804 |
| | EP 928291 | B1 | 20021204 | | |
| | R: | | | | |
| | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | | |
| | IE, SI, LT, LV, FI, RO | | | | |
| | CN 1234039 | A | 19991103 | CN 1997-199024 | 19970804 |
| | BR 9713207 | A | 20000404 | BR 1997-13207 | 19970804 |
| | NZ 334490 | A | 20000825 | NZ 1997-334490 | 19970804 |
| | JP 2001501926 | T2 | 20010213 | JP 1998-514658 | 19970804 |
| | AT 229034 | E | 20021215 | AT 1997-935308 | 19970804 |
| | PT 928291 | T | 20030331 | PT 1997-97935308 | 19970804 |
| | ES 2184126 | T3 | 20030401 | ES 1997-935308 | 19970804 |
| | TW 445262 | B | 20010711 | TW 1997-86113339 | 19970913 |
| | ZA 9708307 | A | 19980319 | ZA 1997-8307 | 19970915 |
| | MX 9902577 | A | 20000131 | MX 1999-2577 | 19990317 |
| | NO 9901316 | A | 19990518 | NO 1999-1316 | 19990318 |
| | HK 1020741 | A1 | 20030502 | HK 1999-105993 | 19991221 |
| PRAI | US 1996-719291 | A | 19960919 | | |
| | WO 1997-US13738 | W | 19970804 | | |
| OS | MARPAT 128:270870 | | | | |
| GI | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention relates to certain novel title compds. I [R1 = C1-6 alkyl, W-(CH2)m, Q-Z-(CH2)m; W = phthalimido; Z = bond, O, NR6, CONR6, NR6CO, NHCONR6, O2CNR6, NHCO2, SO2NR6; Q = H, Y-(CH2)n; Y = H, C6-10 aryl, C3-9 heteroaryl, CO2R6, NR62, morpholino, piperidino, pyrrolidino, isoindolyl; R2 = C1-4 alkyl, (CH2)p-(C3-9) heteroaryl, (CH2)p-Ar1; Ar1 = (un)substituted Ph or naphthyl; R3 = H, C1-6 alkyl, CH2SCH2NHAc, (CH2)p-A, (CH2)m-B, CH2-D-R7; A = C6-10 aryl, C3-9 heteroaryl, cyclohexyl; B =

NR72, guanidino, nitroguanidino, CO2R6, CONR6; D = O, S; R4 = H, (CH2)m-S(O)pX1(R6)2; R5 = H, C1-6 alkyl; NR4R5 = piperidino, pyrrolidino, isoindolyl; R6 = H, C1-6 alkyl; R7 = H, C1-4 alkyl, (CH2)p-Ar1; R8 = H, CO2R7, CO(CH2)q-K, S-G; K = nitrogen-containing heterocycle, NR9R10; G = substituted alkyl; R9, R10 = independently C1-4 alkyl, (CH2)p-Ar1; X, X1 = independently CH, N; m = 2-4; n = 0-4; p = 0-2; q = 0-5] as matrix metalloproteinase inhibitors. Pharmaceutical compns. containing said compds. as well as methods of treating various disease states responding to inhibition of matrix metalloproteinase are also claimed herein.

Thus, reductive alkylation of H-L-Phe-NHMe.HCl with azido aldehyde II (prepared in 5 steps from 4-phenylcyclohexanone), followed by deesterification and cyclization gave cis azepine III and its corresponding trans isomer in a 4:5 ratio. Reduction of III with 1,3-propanedithiol gave the corresponding amine, which was coupled with 2-bromo-6-phthalimidohexanoic acid to give bromide IV (R = Br). Substitution of IV (R = Br) with p-methoxybenzyl mercaptan followed by deprotection gave title compound IV (R = SH) (MDL 108,180). MDL 108,180 inhibited matrix metalloproteinases MMP-2, MMP-3, and MMP-12 in vitro with Ki = 1.2 nM, 39 nM, and 18 nM, resp.

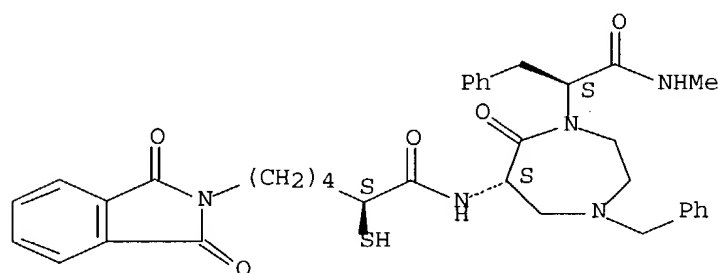
IT 205391-09-9P 205391-10-2P 205391-11-3P
205391-12-4P 205391-13-5P 205496-75-9P, MDL
108180 205496-76-0P, MDL 106540

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of substituted (mercaptoacetyl)azepinone derivs. as matrix metalloproteinase inhibitors)

RN 205391-09-9 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[hexahydro-1-[2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-7-oxo-4-(phenylmethyl)-1H-1,4-diazepin-6-yl]-1,3-dihydro- α -mercapto-1,3-dioxo-, [6S-[1(R*),6R*(R*)]]- (9CI) (CA INDEX NAME)

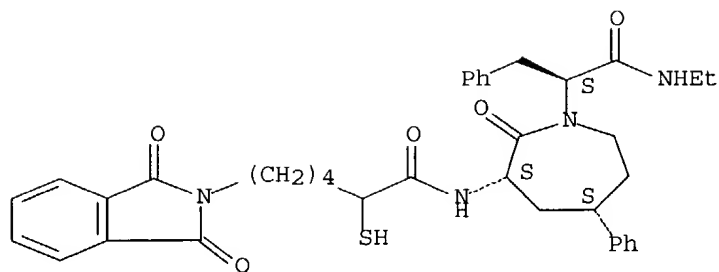
Absolute stereochemistry.



RN 205391-10-2 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[1-[2-(ethylamino)-2-oxo-1-(phenylmethyl)ethyl]hexahydro-2-oxo-5-phenyl-1H-azepin-3-yl]-1,3-dihydro- α -mercapto-1,3-dioxo-, [3S-[1(R*),3 α ,5 α]]-[partial]- (9CI) (CA INDEX NAME)

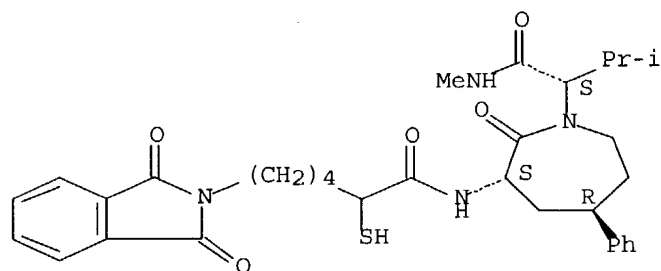
Absolute stereochemistry.



RN 205391-11-3 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[hexahydro-1-[2-methyl-1-[(methylamino)carbonyl]propyl]-2-oxo-5-phenyl-1H-azepin-3-yl]-1,3-dihydro-α-mercapto-1,3-dioxo-, [3S-[1(R*),3α,5β]]-[partial]- (9CI) (CA INDEX NAME)

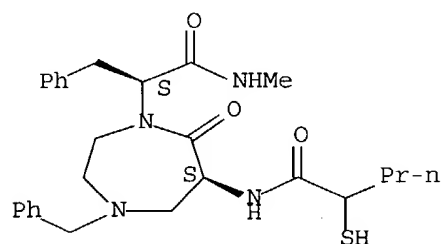
Absolute stereochemistry.



RN 205391-12-4 CAPLUS

CN 1H-1,4-Diazepine-1-acetamide, hexahydro-6-[(2-mercapto-1-oxopentyl)amino]-N-methyl-7-oxo-α,4-bis(phenylmethyl)-, [6S-[1(R*),6R*]]-[partial]- (9CI) (CA INDEX NAME)

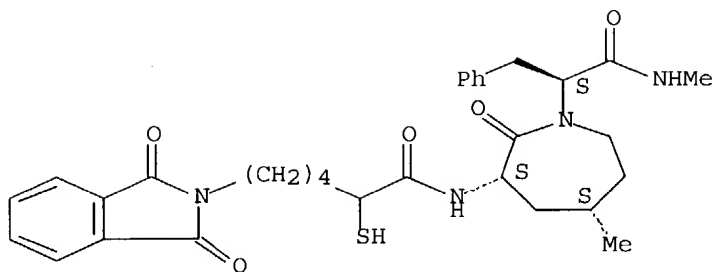
Absolute stereochemistry.



RN 205391-13-5 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[hexahydro-5-methyl-1-[2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-2-oxo-1H-azepin-3-yl]-1,3-dihydro-α-mercapto-1,3-dioxo-, [3S-[1(R*),3α,5α]]-[partial]- (9CI) (CA INDEX NAME)

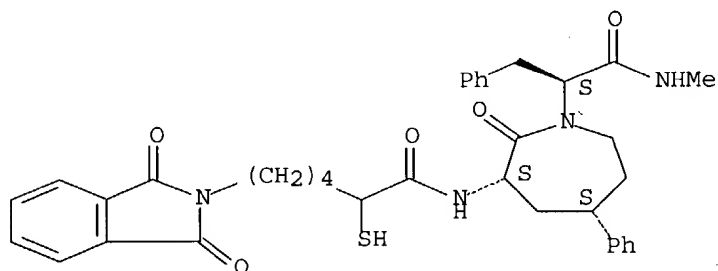
Absolute stereochemistry.



RN 205496-75-9 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[(3S,5S)-hexahydro-1-[(1S)-2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-2-oxo-5-phenyl-1H-azepin-3-yl]-1,3-dihydro-α-mercapto-1,3-dioxo- (9CI) (CA INDEX NAME)

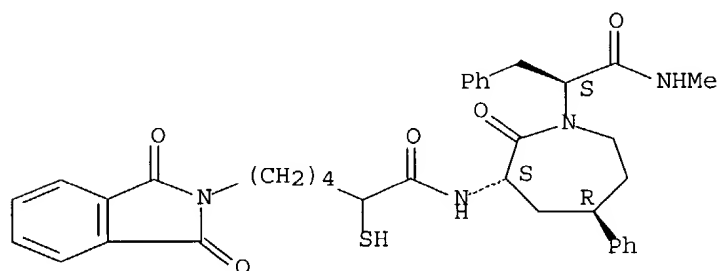
Absolute stereochemistry.



RN 205496-76-0 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[(3S,5R)-hexahydro-1-[(1S)-2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-2-oxo-5-phenyl-1H-azepin-3-yl]-1,3-dihydro-α-mercapto-1,3-dioxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



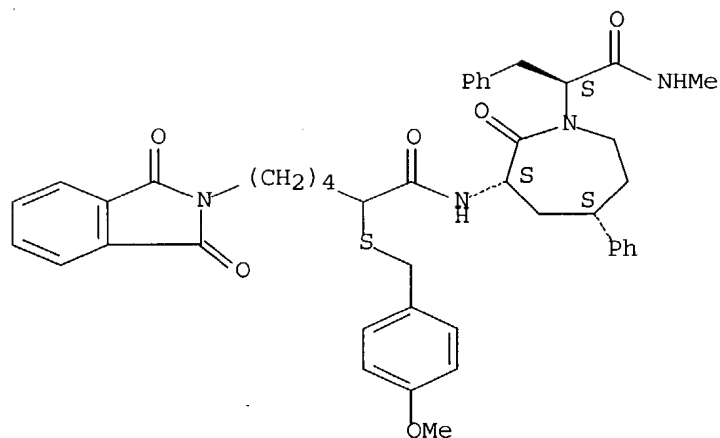
IT 205391-25-9P 205391-28-2P 205391-41-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)(preparation of substituted (mercaptoacetyl amino)azepinone derivs. as matrix metalloproteinase inhibitors)

RN 205391-25-9 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[hexahydro-1-[2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-2-oxo-5-phenyl-1H-azepin-3-yl]-1,3-dihydro-α-[[[4-methoxyphenyl)methyl]thio]-1,3-dioxo-, [3S-[1(R*),3α,5α]]-[partial]- (9CI) (CA INDEX NAME)

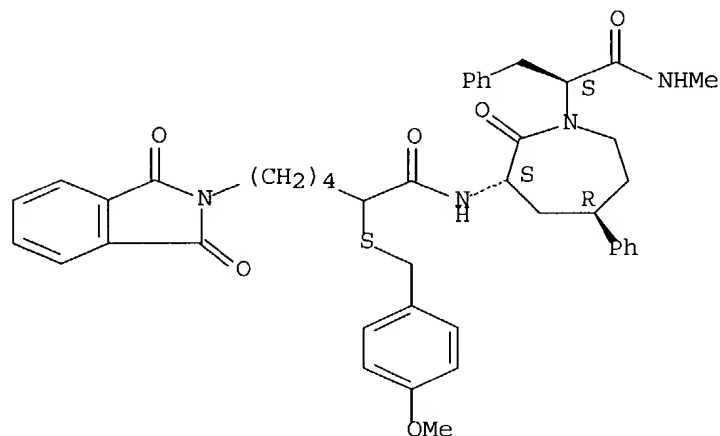
Absolute stereochemistry.



RN 205391-28-2 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[hexahydro-1-[2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-2-oxo-5-phenyl-1H-azepin-3-yl]-1,3-dihydro- α -[[4-methoxyphenyl)methyl]thio]-1,3-dioxo-, [3S-[1(R*),3 α ,5 β]]-[partial]- (9CI) (CA INDEX NAME)

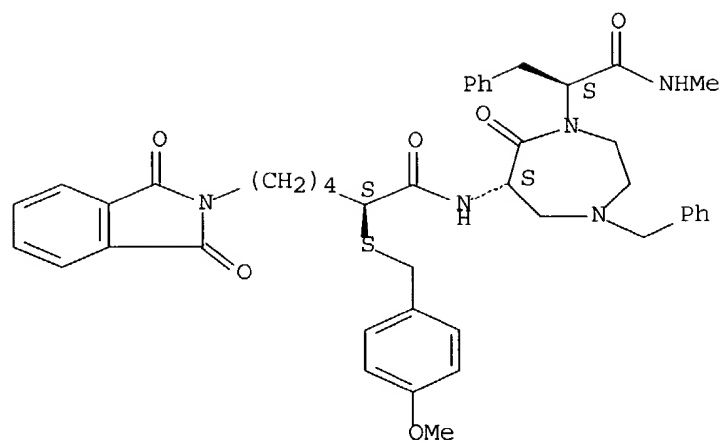
Absolute stereochemistry.



RN 205391-41-9 CAPLUS

CN 2H-Isoindole-2-hexanamide, N-[hexahydro-1-[2-(methylamino)-2-oxo-1-(phenylmethyl)ethyl]-7-oxo-4-(phenylmethyl)-1H-1,4-diazepin-6-yl]-1,3-dihydro- α -[[4-methoxyphenyl)methyl]thio]-1,3-dioxo-, [6S-[1(R*),6R*(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

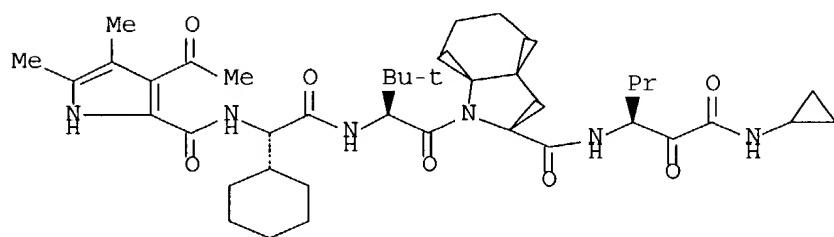
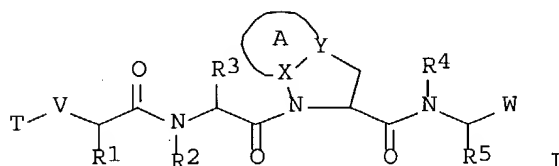


RE.CNT 5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 1 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 139:338195 MARPAT Full-text
 TI Preparation of peptides as inhibitors of serine proteases, particularly
 HCV NS3-NS4A protease
 IN Pitlik, Janos; Cottrell, Kevin M.; Farmer, Luc J.; Perni, Robert B.;
 Courtney, Lawrence F.; Van Drie, John H.; Murcko, Mark A.
 PA Vertex Pharmaceuticals, Inc., USA
 SO PCT Int. Appl., 210 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

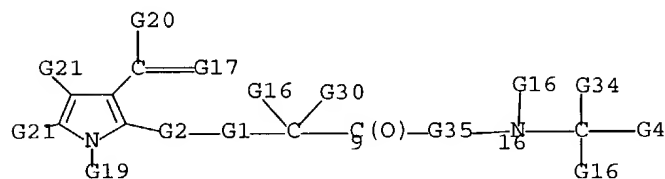
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2003087092 | A2 | 20031023 | WO 2003-US11459 | 20030411 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, | | | | |
| TM | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2004018986 | A1 | 20040129 | US 2003-412600 | 20030411 |
| PRAI | US 2002-371846P | | 20020411 | | |
| GI | | | | | |



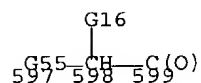
AB The invention relates to compds. I [A together with X and Y is a 3- to 6-membered aromatic or non-aromatic ring having up to 3 heteroatoms; R1, R3 are aliphatic, (un)substituted (cyclo)alk(en)yl, (hetero)aryl, etc.; R2, R4 are H, (un)substituted aliphatic, cycloalkyl or aryl aliphatic; R5 is (un)substituted aliphatic; W is COCOR6, COCOR6, or COCONR62, where R6 is H, aliphatic, (hetero)aryl, etc.; V is CONR8, SONR8, SO2NR8, where R8 is H or aliphatic; T is (hetero)aryl, aliphatic,

sulfonylaminoalkyl, etc.] that inhibit serine protease activity, particularly the activity of hepatitis C virus NS3-NS4A protease. Thus, peptide II was prepared via coupling reactions in solution and showed K_i and IC_{50} values $< 0.5 \mu M$.

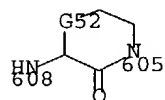
MSTR 2



G1 = S
G35 = 597-9 599-16



G52 = (0-2) CH₂
G55 = 608-9 605-598

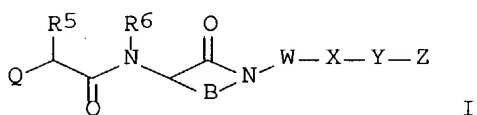


MPL: claim 26
NTE: additional derivatization also claimed

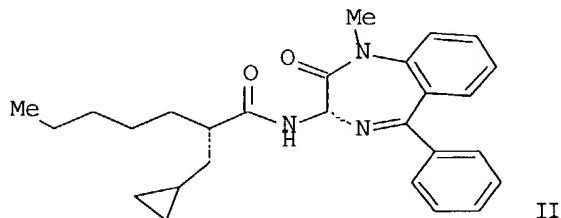
L9 ANSWER 2 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 135:303916 MARPAT Full-text
 TI Preparation of substituted lactams as inhibitors of a β protein production
 IN Han, Wei; Liu, Hong; Olson, Richard E.; Yang, Michael G.
 PA DuPont Pharmaceuticals Company, USA
 SO PCT Int. Appl., 201 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2001077086 | A1 | 20011018 | WO 2001-US11714 | 20010411 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2002025955 | A1 | 20020228 | US 2001-832455 | 20010411 |
| | US 6632812 | B2 | 20031014 | | |
| | EP 1289966 | A1 | 20030312 | EP 2001-930471 | 20010411 |
| | R: | | | | |
| | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004500419 | T2 | 20040108 | JP 2001-575561 | 20010411 |
| PRAI | US 2000-196549P | | 20000411 | | |
| | WO 2001-US11714 | | 20010411 | | |

GI



I

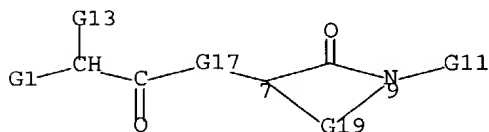


II

AB The title compds. I [wherein Q = (CR7R7a)mR4, (CR7R7a)nSR4, (CR7R7a)nOR4, (CR7R7a)mN(R7b)R4, (CR7R7a)nSOR4, (CR7R7a)nSO2R4, or (CR7R7a)nCOR4, provided when n = 0, then R4 \neq H; m = 1-3; n = 0-2; R4,

R5, and Z = independently H or (un)substituted alkyl, alkenyl, alkynyl, carbocycle, aryl, or heterocycle; R6 = H or (un)substituted alkyl, carbocycle, or aryl; R7 and R7a = independently H or alkyl; R7b = H or alkyl; ring B = (un)substituted 7-membered lactam; W = a bond or (CR8R8a)p; p = 0-4; R8 and R8a = independently H, F, (cyclo)alkyl, alkenyl, or alkynyl; X = a bond or (un)substituted aryl, carbocycle, or heterocycle; Y = a bond or (CR9R9a)tV(CR9R9a)u; t and u = independently 0-2; R9 and R9a = independently H, F, or (cyclo)alkyl; V = a bond, CO, O, S, SO, SO₂, or (un)substituted amino, carbamoyl, carbonylamino, sulfamoyl, aminosulfonyl, carboxy, etc.] were prepared For example, coupling of (3S)-3-amino-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one with (αR)-α-[(1S)-1-hydroxypentyl]cyclopropanepropanoic acid (58%), followed by reaction with thiocarbonyldiimidazole (71%) and reduction with Bu₃SnH (85%), gave II. I inhibit the processing of amyloid precursor protein and, more specifically, inhibit the production of Aβ-peptide, thereby acting to prevent the formation of neurol. deposits of amyloid protein (no data). Thus, I are useful for the treatment of neurol. disorders related to β-amyloid production, such as Alzheimer's disease and Down's Syndrome (no data).

MSTR 1



G9 = S
 G17 = NH
 G19 = CH₂CH₂CH₂CH₂ (SO)
 G20 = Ak<EC (1-) C, BD (0-) D (0-) T> (SO G21)
 G24 = 89

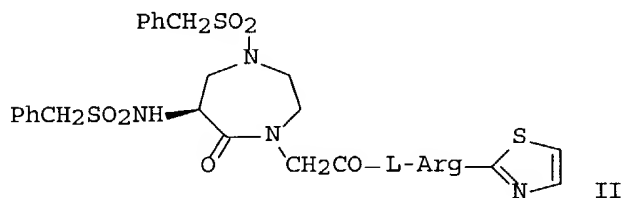
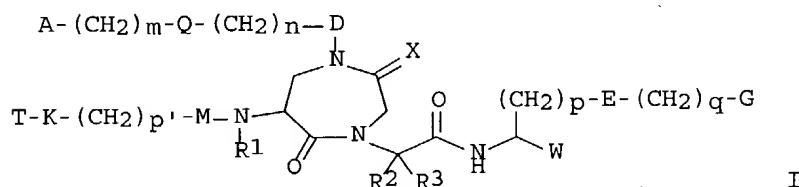
₈G³²⁼⁰

G31 = Hy<EC (5-10) A (1-4) Q (0-) O (0-) S (0-) N (0)
 OTHERQ> (SO)
 G32 = Ak<EC (1-) C, BD (ALL) SE> (SO G21)
 MPL: claim 1
 NTE: or pharmaceutically acceptable salts or prodrugs
 NTE: additional ring formation also claimed

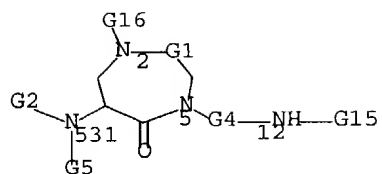
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 133:296661 MARPAT Full-text
 TI Preparation of diazepine peptide derivatives as selective factor Xa inhibitors
 IN Scarborough, Robert M.; Zhu, Bing-yan
 PA Cor Therapeutics Inc, USA
 SO U.S., 32 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 6133256 | A | 20001017 | US 1998-58566 | 19980413 |
| | AU 746596 | B2 | 20020502 | AU 2000-55079 | 20000831 |
| PRAI | US 1997-69323P | | 19970414 | | |
| GI | | | | | |



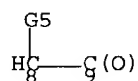
AB Novel compds. I [R₁, R₂ = H, alkyl, cycloalkyl, alkylaryl, alkylcycloalkyl, aryl; R₃ = H or CR₂R₃ is a carbocyclic ring; m = 0-2; n = 0-6; p, p' = 0-4; q = 0-1; A, T, G = H, OH, alkyl, aryl, amino, guanidino, etc.; Q, K, E is a direct link, cycloalkyl, aryl, heterocyclyl containing 1-4 heteroatoms N, O, and S, etc.; D, M is a direct link, CO, SO₂, O₂C, NR₉SO₂, NR₉CO, where R₉ = H, OH, alkyl, aryl, or alkylaryl; X = O or H₂; W = H, acyl, or borate group] were prepared as inhibitors of factor Xa. The compds. are useful in vitro or in vivo for preventing or treating coagulation disorders. Thus, diazepinone arginine derivative II was prepared by a multistep procedure involving cyclization of (S)- CbzNHCH(CO₂CMe₃)CH₂NBnCH₂CH₂NBocCH₂CO₂Me (Cbz = benzyloxycarbonyl, Bn = benzyl, Boc = tert-butoxycarbonyl) to form the diazepinone ring system.



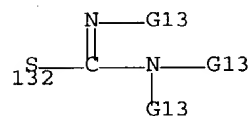
G1 = C(O)
G2 = 557

557(O)-G57

G4 = 8-5 9-12



G8 = Ak<EC (1-10) C, BD (0-) D (0) T>
G30 = 132

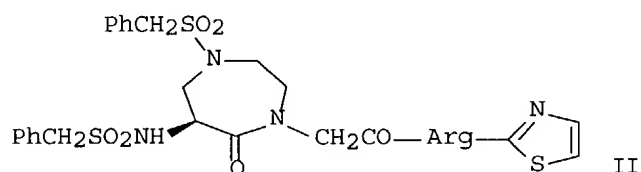
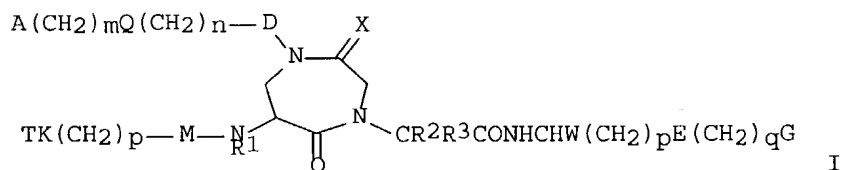


MPL: claim 1
NTE: and pharmaceutically acceptable salts
NTE: additional ring formation also claimed
NTE: substitution is restricted
STE: and optical isomers

RE.CNT 139 THERE ARE 139 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 129:331052 MARPAT Full-text
 TI Preparation of selective factor Xa inhibitors
 IN Scarborough, Robert M.; Zhu, Bing-yan
 PA Cor Therapeutics, Inc., USA
 SO PCT Int. Appl., 58 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

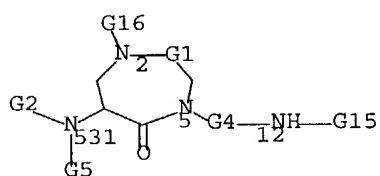
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9846628 | A1 | 19981022 | WO 1998-US7161 | 19980413 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT; BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9868964 | A1 | 19981111 | AU 1998-68964 | 19980413 |
| | AU 741099 | B2 | 20011122 | | |
| | EP 975659 | A1 | 20000202 | EP 1998-914659 | 19980413 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | NZ 500351 | A | 20011026 | NZ 1998-500351 | 19980413 |
| | JP 2001521524 | T2 | 20011106 | JP 1998-544069 | 19980413 |
| | MX 9909137 | A | 20000228 | MX 1999-9137 | 19991006 |
| | AU 746596 | B2 | 20020502 | AU 2000-55079 | 20000831 |
| PRAI | US 1997-69323P | | 19970414 | | |
| | WO 1998-US7161 | | 19980413 | | |
| GI | | | | | |



AB Heterocyclyl peptides I [R1, R2 = H, alkyl, cycloalkyl, alkylaryl, alkylcycloalkyl, aryl; R3 = H or R2 and R3 together form a carbocyclic

ring; m = 0-2; n = 0-6; p = 0-4; q = 0-1; A, T, G = H, OH, alkyl, aryl, alkylaryl, or various amine-containing groups; Q = null, alkyl, cycloalkyl, alkenyl, alkenylaryl, aryl, heterocyclyl; D, M = null, CO, SO₂, OCO, (un)substituted iminosulfonyl or iminocarbonyl; X = O, H₂; K = null, cycloalkyl, alkenyl, alkenylaryl, aryl, heterocyclyl; E = null, cycloalkyl, aryl, heterocyclyl; W = H, acyl, borate moiety] were prepared as factor Xa inhibitors. Compds. of the invention, e.g., II, have IC₅₀ values <500 nM in the factor Xa assay.

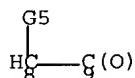
MSTR 1



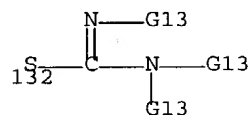
G1 = C(O)
G2 = 557

⁵S(0)-G57

G4 = 8-5 9-12



G8 = Ak<EC (1-10) C, BD (0-) D (0) T>
G30 = 132

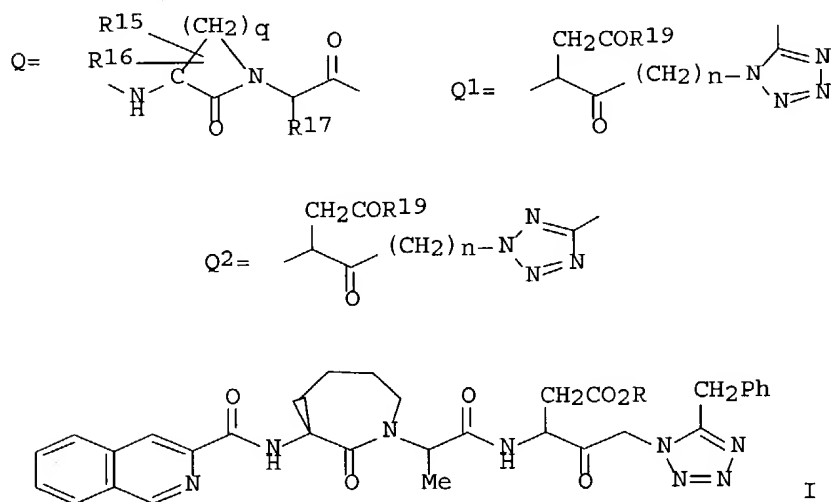


DER: and pharmaceutically acceptable salts
MPL: claim 1
NTE: additional ring formation also claimed
NTE: substitution is restricted
STE: and optical isomers

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 129:302889 MARPAT Full-text
 TI Preparation of tetrazole-containing peptide analogs as inhibitors of
 interleukin-1 β converting enzyme
 IN Omoto, Kazuayuki; Tanaka, Makoto; Miyazaki, Toru; Ono, Hiroyuki
 PA Ono Pharmaceutical Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

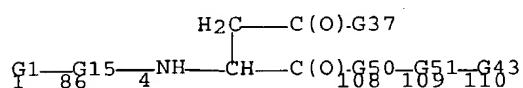
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 10251295 | A2 | 19980922 | JP 1997-52183 | 19970307 |
| PRAI | JP 1997-52183 | | 19970307 | | |
| GI | | | | | |



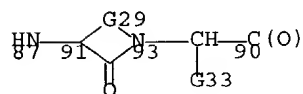
AB The title peptide analogs represented by formula R-AA1-AA2-NH-Y [R = H, R1-J-CO, R1-J-S(O)_m; wherein J = single bond, C1-6 alkylene, C1-6 oxy-, amino, or thioalkylene, C2-6 alkenylene, carbocyclic or heterocyclic ring; R1 = C1-8 alkyl or alkoxy, C2-8 alkenyl or alkenyloxy, mono or di(C1-8 alkyl)amino, etc.; AA1 = single bond, NHCHR₄CO; wherein R₄ = H, (un)substituted C1-8 alkyl, (un)substituted carbocyclic or heterocyclic ring; AA2 = single bond, NR₉CR₁₀CO; wherein R₉, R₁₀ = H, (un)substituted C1-8 alkyl, (un)substituted carbocyclic or heterocyclic ring; or R₉ and R₁₀ are joined together to represent C1-6 alkylene or C2-6 alkenylene; or AA1 and AA2 are joined together to represent Q; wherein R₁₅, R₁₆ = H, C1-4 alkyl, Ph, (un)substituted phenyl-C1-4 alkyl; R₁₇ = H, (un)substituted C1-8 alkyl, carbocyclic or heterocyclic ring; q = 2-12; one of C atoms in (CH₂)_q is replaced by O, S, SO, SO₂, or (un)substituted NH or two adjacent H are removed to form a double bond; Y = Q1 or Q2; wherein R₁₉ = C₉-20 alkoxy, C₃-7 cycloalkoxy, (un)substituted heterocyclyloxy, etc.; n = 1-4; Z = single bond, C1-6 alkylene, C2-6 alkenylene, O, S, CO, SO, SO₂, (un)substituted NH, C1-6

alkylene with one of C atoms being replaced by O, S, SO, SO₂, or (un)substituted NH; E = H, halo, CF₃, diphenyl-C1-4 alkyl, tri(C1-4 alkyl)silyl, C1-4 alkyl, CO₂H or its ester, (un)substituted CONH₂ or NH₂, etc.] are pr. These peptides are useful for the treatment of various inflammatory diseases. Thus, esterification of a peptide analog (I; R = H) with cyclobutylmethanol 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide and 4-dimethylaminopyridine in CH₂Cl₂ at room temperature for 12 h to give the title peptide I (R = cyclobutylmethyl), which showed more potent inhibitory activity (transferability into blood) against interleukin-1 β converting enzyme than the free carboxylic acid I (R = H). A tablet formulation containing I (R = cyclobutylmethyl) was described.

MSTR 1



G2 = C(0)
G7 = alkylthio<(1-8)> (SO (-2) G14)
G13 = alkylene<(1-6)>
G15 = 87-1 90-4

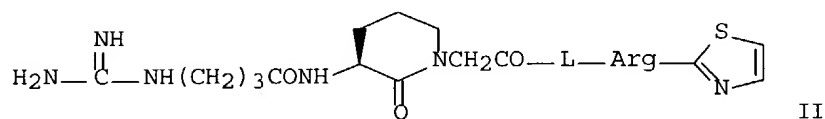
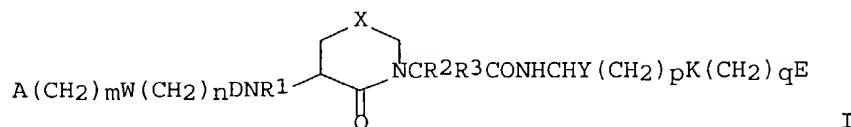


G29 = CH2CH2CH2CH2
DER: or non-toxic salts or acid addition salts
MPL: claim 1
NTE: substitution is restricted

L9 ANSWER 6 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 128:308746 MARPAT Full-text
 TI Preparation of peptides as selective factor Xa inhibitors
 IN Zhu, Bing-Yan; Scarborough, Robert M.
 PA COR Therapeutics, Inc., USA
 SO PCT Int. Appl., 61 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|----------|-----------------|----------|
| PI | WO 9816523 | A2 | 19980423 | WO 1997-US18291 | 19971010 |
| | WO 9816523 | A3 | 19980618 | | |
| | W: | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| | AU 9749809 | A1 | 19980511 | AU 1997-49809 | 19971010 |
| | AU 720513 | B2 | 20000601 | | |
| | EP 937073 | A2 | 19990825 | EP 1997-912697 | 19971010 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | |
| | JP 2001504810 | T2 | 20010410 | JP 1998-518454 | 19971010 |
| | US 6262047 | B1 | 20010717 | US 1997-948672 | 19971010 |
| PRAI | US 1996-33749P | | 19961011 | | |
| | US 1996-731366 | | 19961011 | | |
| | US 1997-948672 | | 19971010 | | |
| | WO 1997-US18291 | | 19971010 | | |

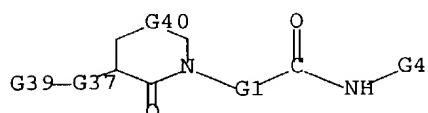
GI



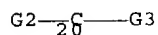
AB Heterocyclyl peptides I [R1 = H, alkyl, alkylaryl; R2 = H, alkyl, cycloalkyl, alkylaryl, alkylcycloalkyl, aryl; R3 = H, alkyl or R2 and R3 taken together form a carbocyclic ring; X = (CH2)q; m = 0-3, n = 0-6; p = 0-4; q = 0-2; A = heterocyclyl, H, OH, alkyl, aryl, alkylaryl,

(un)substituted NH₂, NHC(:NH)NH₂, C(:NH)NH₂, NHCH:NH, CH:NH, or SC(:NH)NH₂; W = direct link, alkyl, cycloalkyl, alkenyl, alkenylaryl, aryl, heterocyclyl; D = direct link, CO, SO₂, CH₂, OCO, (un)substituted NHSO₂ or NHCO; K = direct link, cycloalkyl, aryl, heterocyclyl; E = H, OH, alkyl, aryl, alkylaryl, (un)substituted NH₂, NHC(:NH)NH₂, C(:NH)NH₂, NHCH:NH, CH:NH, or SC(:NH)NH₂; Y = H, B(OH)₂ or ester, acyl group] having activity against mammalian factor Xa were prepared. Thus, compound II was prepared for assay of antithrombotic efficacy.

MSTR 1

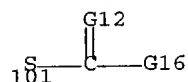


G1 = 20



G17 = Ak<EC (1-) C, BD (0-) D (0) T> (SO (1-) G33)

G21 = 101



G36 = C(O)

G37 = NH

G40 = (0-2) CH₂

MPL: claim 1

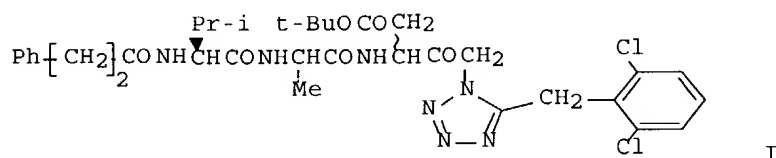
NTE: additional substitution and ring formation also claimed

STE: and optical isomers

L9 ANSWER 7 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 127:109196 MARPAT Full-text
 TI Preparation of tetrazole moiety-containing peptides as interleukin 1 β
 converting enzyme inhibitors
 IN Ohmoto, Kazuyuki; Tanaka, Makoto; Miyazaki, Tohru; Ohno, Hiroyuki
 PA Ono Pharmaceutical Co., Ltd., Japan; Ohmoto, Kazuyuki; Tanaka, Makoto;
 Miyazaki, Tohru; Ohno, Hiroyuki
 SO PCT Int. Appl., 743 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese

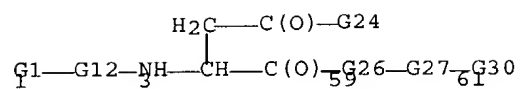
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9724339 | A1 | 19970710 | WO 1996-JP3801 | 19961226 |
| | W: JP, KR, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, | | | | |
| SE | EP 889039 | A1 | 19990107 | EP 1996-942651 | 19961226 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | US 6136834 | A | 20001024 | US 1998-101004 | 19980629 |
| | US 6376484 | B1 | 20020423 | US 2000-572569 | 20000516 |
| PRAI | JP 1995-351241 | | 19951227 | | |
| | WO 1996-JP3801 | | 19961226 | | |
| | US 1998-101004 | | 19980629 | | |
| GI | | | | | |



AB The title compds. R1COAA1AA2NH₂ [R1 represents H, alkyl, alkoxy, a carbocycle, a heterocycle, alkyl or alkoxy substituted by a carbocycle or a heterocycle, etc.; AA1 represents a single bond or NHCHR₄CO; R₄ = H, etc.; AA2 represents a single bond, etc.; further details on AA1 and AA2 are given; Y represents a group of formula CH[CH₂CO₂R₁₉](CH₂)_nTetZE wherein Tet represents a tetrazole ring; Z represents alkylene, alkenylene, O, S, SO, SO₂, etc.; E represents H, alkyl, etc.; R₁₉ represents H, alkyl, etc.; n = 1 - 4] are prepared The title compound I in vitro showed IC₅₀ of 0.03 μ M against interleukin 1 β converting enzyme.

MSTR 1

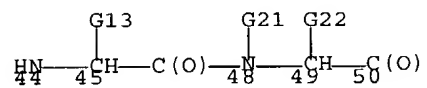


G2 = alkylene<(1-6)>

G5 = C(O)

G7 = S

G12 = 44-1 50-3



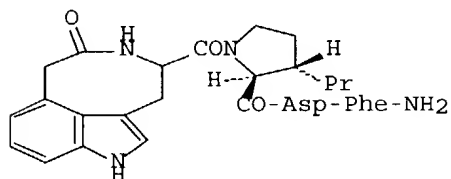
G23 = (2-12) CH2 (SO)

MPL: claim 1

L9 ANSWER 8 OF 8 MARPAT COPYRIGHT 2004 ACS on STN
 AN 115:50308 MARPAT Full-text
 TI Preparation of tetrapeptide type-B CCK receptor ligands
 IN Chung, John Y. L.; Tufano, Michael D.; May, Paul D.; Shiosaki, Kazumi;
 Nadzan, Alex M.; Garvey, David S.; Shue, Youe Kong; Brodie, Mark S.;
 Holladay, Mark W.
 PA Abbott Laboratories, USA
 SO Eur. Pat. Appl., 101 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 405506 | A1 | 19910102 | EP 1990-112261 | 19900627 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | CA 2020065 | AA | 19901231 | CA 1990-2020065 | 19900628 |
| | JP 03068597 | A2 | 19910325 | JP 1990-174287 | 19900630 |
| PRAI | US 1989-375107 | | 19890630 | | |
| | US 1990-531771 | | 19900606 | | |

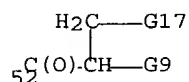
GI



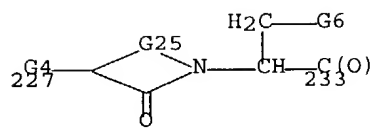
AB Type B-cholecystokinin (CCK) tetrapeptide agonists A-B-C-D [A = functionalized acetyl, RCO, R = heterotricyclic, carbotricyclic; B = functionalized aminopropionyl residue; A-B = functionalized piperazinedionyl, functionalized 5-amino-3-aza-4-oxohexanoyl; C = NR1CH(CH2R2)CO, R1 = H, lower alkyl, R2 = CO2H, tetrazolyl; B-C = bridged Ala-Asp residue or bridged tetrazolylalanine-Ala residue; D = functionalized ethylamino, functionalized tetrahydroisoquinolyl, functionalized piperazinon-1-yl, dehydrophenylalanine derivative; C-D = functionalized succinimidyl] and pharmaceutically acceptable salts thereof are prepared for treating a variety of disorders, including central nervous system disorders. Thus tetrapeptide I, prepared by solution coupling, possess affinity and selectivity for the cortical CCK receptor and stimulated calcium mobilization at CCK-B receptors on small cell lung cancer cell lines.

MSTR 1C

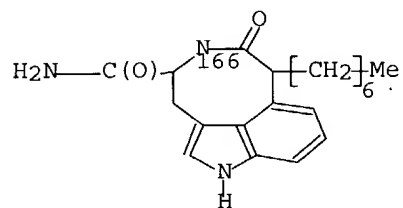
G1—G3—G7
 G1 = 52



G3 = 227-1 233-3

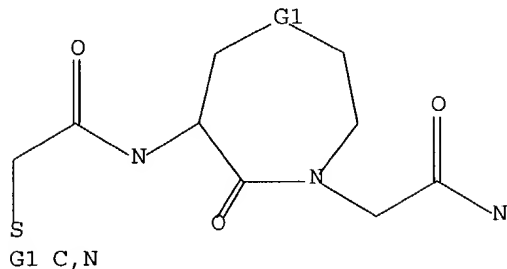


G4 = NH
G7 = 166



G9 = alkylthio<(1-7)>
G25 = (2-4) CH2
DER: or pharmaceutically acceptable salts
MPL: claim 1

=> d l1; d his; log y
 L1 HAS NO ANSWERS
 L1 STR



Structure attributes must be viewed using STN Express query preparation.

(FILE 'HOME' ENTERED AT 18:36:46 ON 24 FEB 2004)

FILE 'REGISTRY' ENTERED AT 18:36:54 ON 24 FEB 2004
 L1 STRUCTURE UPLOADED
 L2 1 S L1
 L3 10 S L1 FUL

FILE 'CAPLUS' ENTERED AT 18:37:19 ON 24 FEB 2004
 L4 1 S L3

FILE 'BEILSTEIN' ENTERED AT 18:37:49 ON 24 FEB 2004
 L5 0 S L1
 L6 0 S L1 FUL

FILE 'MARPAT' ENTERED AT 18:38:04 ON 24 FEB 2004
 L7 0 S L1
 L8 9 S L1 FUL
 L9 8 S L8 NOT L4

| | | |
|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 145.86 | 306.74 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -5.28 | -5.97 |

STN INTERNATIONAL LOGOFF AT 18:40:02 ON 24 FEB 2004